



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/081,292 | 02/26/2002 | Koichi Shirai | DAIN:669 | 9815 |
| 25944 | 7590 | 05/17/2006 | EXAMINER | |
| OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320 | | | THOMPSON, JAMES A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2625 | |

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|-------------------------------|--|
| Office Action Summary | Application No. 10/081,292 | Applicant(s) SHIRAI ET AL. | |
| | Examiner James A. Thompson | Art Unit 2624 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) <input type="checkbox"/> Other: _____ |
|--|---|

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 5, 8, 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (US Patent 5,053,866).

Regarding claim 1: Johnson discloses inputting image data into an input unit (figure 1(12) and column 4, lines 6-9 of Johnson); correcting the image data input into the input unit by using output-correcting values by a controller (figure 1(22) and column 4, lines 10-11 and lines 16-19 of Johnson) to obtain color-corrected image data (column 4, lines 11-19 of Johnson); and printing an image represented by the color-corrected image data corrected by the controller by an output unit (figure 1(28) and column 4, lines 28-34 of Johnson).

Regarding claim 3: Johnson discloses a color correcting system (figure 1 of Johnson) comprising an input unit (figure 1 (12) of Johnson) that receives image data (column 4, lines 6-9 of Johnson); a controller (figure 1(22) and column 4, lines 10-

Art Unit: 2624

11 and lines 16-19 of Johnson) storing output-correcting values for correcting the image data received by the input unit by using the output-correcting values (column 4, lines 11-19 of Johnson); and an output unit (figure 1(28) of Johnson) that prints an image on the basis of the corrected image data obtained by correcting the image data by the controller (column 4, lines 28-34 of Johnson).

Regarding claim 5: Johnson discloses that the controller changes the output-correcting values in accordance with the printing conditions (column 7, lines 29-34 of Johnson).

Regarding claim 8: Johnson discloses reading a printed image by an input unit (figure 1(20) of Johnson) to obtain image data (column 6, lines 3-8 of Johnson), and modifying the image data read by the input unit by a controller (figure 1(22) and column 4, lines 10-11 and lines 16-19 of Johnson) by using color modification parameters corresponding to a printing system by which the printed image was formed (column 6, lines 30-40 of Johnson).

Regarding claim 10: Johnson discloses a color-correcting system (figure 1 of Johnson) comprising an input unit (figure 1(20) of Johnson) that reads a printed image to obtain image data (column 6, lines 3-8 of Johnson); and a controller (figure 1(22) and column 4, lines 10-11 and lines 16-19 of Johnson) that modifies the image data provided the input unit by using color modification parameters (column 6, lines 30-40 of Johnson) corresponding to a printing system by which the printed image was formed (column 7, lines 7-18 of Johnson).

Regarding claim 12: Johnson discloses an output unit (figure 1(28) of Johnson) that prints an image on the basis of

Art Unit: 2624

the image data modified by the controller (column 4, lines 29-36 of Johnson).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US Patent 5,053,866) in view of *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

Regarding claim 2: Johnson discloses printing a test image by the output unit on the basis of test image data (column 4, lines 28-34 of Johnson) carrying reference color development characteristic information (column 5, lines 61-65 of Johnson); reading the printed test image data by a second input unit (figure 1(20) of Johnson) to obtain the image data (column 6, lines 3-8 of Johnson); calculating the output correcting values by the controller on the basis of the differences (column 6, lines 30-40 of Johnson) between the color development characteristic information included in the test image data read by the second input unit and the reference color development characteristic information (column 6, lines 9-16 of Johnson).

Johnson teaches that the input unit (figure 1(12) of Johnson, recited in claim 1) is a general-purpose digital image data source, which may be a system (generally known as a

Art Unit: 2624

scanner) for converting a hardcopy color image to digital color image data signals (column 4, lines 4-9 of Johnson). Johnson does not disclose expressly that said input unit and said second input unit are the same input unit. However, *In re Larson* has held that making parts integral is an obvious engineering design choice if there is no novel and unexpected result. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have said input unit, which in one embodiment taught by Johnson is a scanner, and said second input unit be the same input unit. In other words, the data source (figure 1(12) of Johnson) is a scanner and the scanner (figure 1(20) of Johnson) is the same scanner. The suggestion for doing so would have been that, if a scanner is used as the data source, which is an embodiment taught by Johnson (column 4, lines 4-9 of Johnson), then there is no need to provide a second scanner. The single scanner can be used as both the data source and to read the printed test image.

Regarding claim 4: Johnson discloses that the controller has test image data (column 4, lines 28-34 of Johnson) including reference color development characteristic information (column 5, lines 61-65 of Johnson), a second input unit (figure 1(20) of Johnson) reads the test image printed on the bases of the test image data by the output unit (column 6, lines 3-8 of Johnson), and the controller calculates output-correcting values on the basis of the difference (column 6, lines 30-40 of Johnson) between the color development characteristic information included in the test image data read by the second input unit and the reference color development characteristic information (column 6, lines 9-16 of Johnson).

Johnson teaches that the input unit (figure 1(12) of Johnson, recited in claim 1) is a general-purpose digital image data source, which may be a system (generally known as a scanner) for converting a hardcopy color image to digital color image data signals (column 4, lines 4-9 of Johnson). Johnson does not disclose expressly that said input unit and said second input unit are the same input unit. However, *In re Larson* has held that making parts integral is an obvious engineering design choice if there is no novel and unexpected result. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have said input unit, which in one embodiment taught by Johnson is a scanner, and said second input unit be the same input unit. In other words, the data source (figure 1(12) of Johnson) is a scanner and the scanner (figure 1(20) of Johnson) is the same scanner. The suggestion for doing so would have been that, if a scanner is used as the data source, which is an embodiment taught by Johnson (column 4, lines 4-9 of Johnson), then there is no need to provide a second scanner. The single scanner can be used as both the data source and to read the printed test image.

6. Claims 6, 9, 11, 14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US Patent 5,053,866) in view of Stokes (US Patent 5,881,209).

Regarding claim 6: Johnson discloses that said controller determines output-correcting values in accordance with printing conditions (column 7, lines 29-34 of Johnson).

Johnson does not disclose expressly that the controller stores a plurality of sets of output-correcting values and

Art Unit: 2624

selects an appropriate set of output-correcting values in accordance with printing conditions.

Stokes discloses storing a plurality of sets of output-correcting values (column 4, lines 51-58 of Stokes) and selecting an appropriate set of output-correcting values (column 5, lines 1-9 of Stokes) in accordance with printing conditions (column 6, lines 26-34 of Stokes).

Johnson and Stokes are combinable because they are from the same field of endeavor, namely color correction in digital image data printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to store and select between a plurality of different output-correcting values, as taught by Stokes. The suggestion for doing so would have been that there are many available source and destination devices that may require calibration so that the colors presented for one device or hardcopy are the same as the colors output on another device or hardcopy (column 4, lines 34-39 of Stokes). Therefore, it would have been obvious to combine Stokes with Johnson to obtain the invention as specified in claim 6.

Regarding claim 9: Johnson does not disclose expressly identifying the printing system by which the printed image was formed and specifying desired color modification parameters by the controller.

Stokes discloses identifying the printing system by which the printed image was formed and specifying desired color modification parameters by the controller (column 5, lines 1-9 of Stokes).

Johnson and Stokes are combinable because they are from the same field of endeavor, namely color correction in digital image

Art Unit: 2624

data printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to identify the printer used to make the hardcopy to be color corrected and specify the color modifications accordingly, as taught by Stokes. The suggestion for doing so would have been that there are many available source and destination devices that may require calibration so that the colors presented for one device or hardcopy are the same as the colors output on another device or hardcopy (column 4, lines 34-39 of Stokes). Therefore, it would have been obvious to combine Stokes with Johnson to obtain the invention as specified in claim 9.

Regarding claim 11: Johnson does not disclose expressly that the controller stores a plurality of sets of color modification parameters respectively corresponding to a plurality of printing systems, identifies a printing system by which the printed image was formed, and specifies a desired set of color modification parameters.

Stokes discloses storing a plurality of sets of color modification parameters respectively corresponding to a plurality of printing systems (column 4, lines 51-60 of Stokes), identifying a printing system by which the printed image was formed (column 5, lines 1-9 of Stokes), and specifying a desired set of color modification parameters (column 5, lines 1-9 of Stokes).

Johnson and Stokes are combinable because they are from the same field of endeavor, namely color correction in digital image data printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to store a plurality of different output-correcting values and select between said plurality of different output-correcting

values based on a printer identification, as taught by Stokes. The suggestion for doing so would have been that there are many available source and destination devices that may require calibration so that the colors presented for one device or hardcopy are the same as the colors output on another device or hardcopy (column 4, lines 34-39 of Stokes). Therefore, it would have been obvious to combine Stokes with Johnson to obtain the invention as specified in claim 11.

Further regarding claim 14: Stokes discloses that the controller identifies the printing system by which the printed image was formed on the basis of external data given thereto (column 4, lines 56-67 of Stokes).

Further regarding claim 16: Stokes discloses that the controller identifies a printing system by which the printed image was formed on the basis of information provided by an information storage medium storing printing systems by which the printed images were formed (column 4, lines 56-67 of Stokes).

Regarding claim 17: Johnson discloses that the controller corrects the image data provided by the input unit by using color correction parameters stored therein (column 5, lines 40-46 of Johnson).

7. Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US Patent 5,053,866) in view of well-known prior art.

Regarding claim 7: Johnson discloses that said output unit is a printer (column 4, lines 28-34 of Johnson).

Johnson does not disclose expressly that said printer is specifically a sublimation dye transfer printer.

Official Notice is taken that sublimation dye transfer printers are old, well-known and expected in the art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically use a sublimation dye transfer printer as the output printer taught by Johnson. The suggestion for doing so would have been any kind of digital halftone printer can be used in the color correction system taught by Johnson (column 4, lines 29-40 of Johnson).

Regarding claim 13: Johnson discloses that input unit is a scanner (figure 1(20("scanner"))) and column 6, lines 3-4 of Johnson).

Johnson does not disclose expressly that said scanner is specifically a flat-bed scanner.

Official Notice is taken that flat-bed scanners are old, well-known and expected in the art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically use a flat-bed scanner as the type of scanner. The suggestion for doing so would have been that flat-bed scanners can easily read flat hardcopy printouts.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US Patent 5,053,866) in view of Stokes (US Patent 5,881,209) and Knox (US Patent 5,734,752).

Regarding claim 15: Johnson in view of Stokes discloses identifying a printing system by which the printed image was formed (column 5, lines 1-9 of Stokes), as discussed above in the arguments regarding claim 11.

Johnson in view of Stokes does not disclose expressly that said identification is performed on the basis of electronic

watermark information included in the image data obtained by reading the printed image.

Knox discloses that the source of a printed document image can be identified on the basis of electronic watermark information included in the image data obtained by reading the printed image (column 1, lines 40-46 of Knox).

Johnson in view of Stokes is combinable with Knox because they are from similar problem solving areas, namely printing and image processing based on the identity of the specific printer involved. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform the identification taught by Stokes using a watermark to provide the information as to the source, as taught by Knox. The image source according to the teachings of Johnson in view of Stokes would be the printer that produces the hardcopy output. The motivation for doing so would have been to provide an unobtrusive means for storing the identity of the output printer on the hardcopy itself (column 1, lines 11-18 of Knox). Therefore, it would have been obvious to combine Knox with Johnson in view of Stokes to obtain the invention as specified in claim 15.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Hanoch Shalit, US Patent 4,939,581, Patented 03 July 1990, Filed 23 November 1988.
- b. Zhongjie Liang, US Patent 5,579,031, Patented 26 November 1996, Filed 14 February 1995.

Application/Control Number: 10/081,292
Art Unit: 2624

Page 12

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



02 December 2005

James A. Thompson
Examiner
Art Unit 2624



THOMAS D. USE